

REMARKS

In the Non-Final Office action dated October 11, 2005, claims 1-44 are pending in the application, and claims 1-44 are rejected. The Action states "Claims 44 are rejected under 35 U.S.C. 103(a)" which does not clearly indicate the nature of the rejections. The rejections of independent claims 1, 14, 25, 26, 28, and 38 and 44 only cite U.S. 6,683,885 to Sugai et al. ("Sugai"). Therefore, Applicants address the rejections of these claims as if they are rejected under 35 U.S.C. §102. Applicants note, however, that U.S. 6,216,167 to Momirov ("Momirov") fails to cure the deficiencies of Sugai identified below with respect to these claims. As the rejection of independent claim 39 refers to both Sugai and Momirov, Applicants address the rejection of independent claim 39 as if it were a rejection under 35 U.S.C. §103.

Applicants amend claim 1 to recite storing the data unit in "an output queue," and to clarify that the step of "determining one of the one or more network interfaces" occurs "subsequent to storing the first data unit in the output queue." Applicants similarly amend independent claims 14 and 25. Applicants amend claim 26 to recite storing the data unit in "an output location." Applicants amend claim 28 to clarify that the first one of the one or more network interfaces is identified to transmit a data unit "to another node" and to clarify that the step of "determining a second one of the one or more network interfaces" occurs "subsequent to identifying the first one of the network interfaces." Claims 32 and 38 are similarly amended. Dependent claims 4-6, 8, 10-12, 16-17, 19, 21-24, 26-27, 29, and 33-35 are amended for matters of form in view of the amendments to the above-identified independent claims. These amendments are supported in the specification and figures, and no new matter is added.

The Action rejects claim 1 as being unpatentable over Sugai. Applicants traverse the rejection. The claimed subject matter is generally directed to a method for transmitting a data unit from a node by identifying a network interface to transmit the data unit, storing the data unit in an output associated queue, and subsequently re-determining a network interface to transmit the data unit. In particular, amended claim 1 recites "storing the first data unit in an output queue ... associated with the identified network interface" and "subsequent to storing the first data unit in the output queue, determining one of the one or more network interfaces from which

the first data unit is to be transmitted.” The subsequent determination is beneficial in some instances because changing topologies in the network may render the initial network interface identification obsolete by the time the data unit is to be transmitted by the initially identified network interface. For example, a next-hop node reachable by the initially identified network interface may move out of range of the network interface while the data unit is waiting for transmission, requiring identification of a new next-hop node and/or a new network interface to reach the next-hop node.

The Action asserts that Sugai teaches this subject matter in the abstract, column 3 lines 17-45, figure 1, and column 5 lines 15-29. Applicants respectfully disagree. These passages are generally directed to a network relaying apparatus which produces an output packet and sets the output packet in a queue associated with a destination of a corresponding input packet. The passages fail, however, to describe after already setting the data unit in an output queue, determining a network interface from which a first data unit is to be transmitted, as recited in the claim. In contrast, Figure 3 and column 6 lines 50-56 of Sugai indicate that an output packet is not produced and placed in an output queue until the last step in its routing method.

Therefore, Applicants request reconsideration and withdrawal of the rejection to this claim. Claims 2-13 depend from claim 1 and add further restrictions and limitations thereto. Therefore, Applicants request reconsideration and withdrawal of the rejections to these claims. Since currently amended independent claims 14, 25, and 26, include similar subject matter to claim 1 (claim 26 recites an “output location”), Applicants request reconsideration and withdrawal of the rejections to these independent claims. Claims 15-24, 27, and 29-31, depend, directly or indirectly, from these independent claims. Thus, Applicants request reconsideration and withdrawal of the rejections to these claims.

Amended independent claim 28 includes the recitation “identifying a first one of the one or more network interfaces from which to transmit a data unit to another node when the data unit is received by the node or generated by the node” and “subsequent to identifying the first one of the network interfaces, determining a second one of the one or more network interfaces to transmit the data unit when the data unit is ready to be transmitted by the node.” As explained with respect to claim 1, the subsequent determination is beneficial in some instances because

changing topologies in the network may render the initial network interface identification obsolete by the time the data unit is to be transmitted by the initially identified network interface.

The Action cites Figure 1 of Sugai in its rejection of this claim. Applicants respectfully traverse the rejection. The cited portion does not disclose or suggest both a step of identifying a first network interface from which to transmit a data unit to another node, and a step of determining, subsequent to identifying the first network interface, a second network interface to transmit the data unit. In particular, as illustrated in Figure 3 of Sugai, Sugai discloses identifying a network interface from which to transmit an output packet to another node, but does not disclose subsequently determining a second network interface to transmit the output packet, as recited in claim 28.

Thus, Applicants request reconsideration and withdrawal of the rejection of this claim. Since currently amended independent claims 32 and 38 include similar subject matter to claim 28, Applicants request reconsideration and withdrawal of the rejections to these independent claims. Claims 29-31 and 33-37 depend, directly or indirectly, from these independent claims. Thus, Applicants request reconsideration and withdrawal of the rejections to these claims.

Independent claim 39 is rejected under U.S.C. §103(a) over Sugai and Momirov. Applicants traverse the rejection. Claim 39 is directed to a method for storing data units in a node including using a threshold to determine whether to drop a locally generated data unit, selecting a non-empty lower priority queue when no free buffer exists for the data unit, emptying a buffer from the lower priority queue, and storing the data unit in the emptied buffer. The Action asserts that these limitations are disclosed in Momirov at Figure 3A-3C and Figures 8-9. The cited portion does not disclose or suggest the use of a threshold, nor does it disclose or suggest emptying a lower priority queue.

Additionally, according to M.P.E.P. 2142, "The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Additionally, "to establish a *prima facie* case of obviousness ... there must be some suggestion or motivation ... to modify the reference or to combine reference teachings."

The Examiner has set forth no factual support for a suggestion or motivation to modify the references or to combine their teachings. Thus, the obviousness rejection fails to satisfy the requirements of M.P.E.P. 2142. For these reasons, Applicants request reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of this claim, along with dependent claims 40-43 which add limitations thereto.

Claim 44 is rejected over Sugai. Applicants traverse the rejection. Claim 44 recites “storing a virtual placeholder in a queue of the at least one queue associated with at least one of the one or more network interfaces.” The Action asserts that Sugai teaches this subject matter at Figure 2 and column 5, lines 15-29. However, Sugai does not disclose “storing a virtual placeholder in a queue.” Instead, Sugai describes setting output packets, not virtual placeholders, in appropriate buffers for routes.

In addition, claim 44 recites “identifying, when one of the virtual placeholders reaches a head of one of the at least one queue, neighboring nodes to receive the multicast data unit.” Sugai does not disclose this subject matter. In contrast, as described with respect to Figure 3 of Sugai, the routing processor 10 of Sugai searches for destination information (S303) before producing an output packet (S305) to be set in a queue, and not when a virtual placeholder reaches a head of a queue. Thus, Applicants request withdrawal of the rejection of this claim.

In view of the above remarks, Applicants believe the pending application is in condition for allowance.

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Amendment dated February 13, 2006
Reply to Office Action of October 11, 2005

Docket No.: BBNT-P01-248

Applicant believes no additional fee is due with this response other than what has been indicated in the accompanying forms. However, if an additional fee is due, please charge our Deposit Account No. 18-1945, under Order No. BBNT-P01-248 from which the undersigned is authorized to draw.

Dated: February 13, 2006

Respectfully submitted,

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